DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-024216 Address: 333 Burma Road **Date Inspected:** 03-Jun-2011

City: Oakland, CA 94607

OSM Arrival Time: 1900 **Project Name:** SAS Superstructure **OSM Departure Time:** 700 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: See Below **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component:** OBG

Summary of Items Observed:

CWI Inspector: Mr. Li Peng Fei

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

OBG Trial Assembly

This QA Inspector observed ZPMC welder Mr. Yu Hui Ye, stencil 045143 used flux cored welding procedure specification WPS-B-T-2231-ESAB to perform OBG segment 13BW welds SA3126-001-005 and 006. This QA Inspector observed a welding current of approximately 330 amperes (amps), 24.0 volts, the base material had been preheated with a torch and Mr. Yu Hui Ye appeared to be certified to make these welds. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wu Bing Qian, stencil 069469 used shielded metal arc welding procedure specification WPS-B-P-2214-TC-U5B-FCM-1 to perform OBG segment 13BW welds SA3155C-006-005 and 006. This QA Inspector observed a welding current of approximately 330 amps, 24.0 volts, the base material had been preheated with a torch and Mr. Wu Bing Qian appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

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This QA Inspector observed ZPMC welder stencil 068719 used shielded metal arc welding procedure WPS-B-P-2214-TC-U4B-FCM-1 to make segment 13CW weld SEG3015-009. This QA Inspector observed a welding current of approximately 175 amps and the base material had been preheated with electrical heaters. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Guijun, stencil 067275 used flux cored welding procedure WPS-B-P-2214-TC-U4B-FCM-1 to make segment 13CW weld SEG3015-009. This QA Inspector observed a welding current of approximately 170 amps the base material had been preheated with electrical heaters and Mr. Wang Guijun appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Xia Yuan Chao, stencil 066156 used shielded metal arc welding procedure WPS-B-P-2214-TC-U4B-FCM-1 to make segment 13CW weld SEG3015-009. This QA Inspector observed a welding current of approximately 175 amps the base material had been preheated with a torch and Mr. Xia Yuan Chao appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Zang Yan Bu, stencil 045196 used shielded metal arc welding procedure WPS-B-P-2214-TC-U4B-FCM-1 to make segment 13CW weld SEG3015-009. This QA Inspector observed a welding current of approximately 170 amps the base material had been preheated with a torch and Mr. Zang Yan Bu appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Li Shoufu, stencil 066674 used shielded metal arc welding procedure specification WPS-B-P-2112-TC-U4B-FCM-1 to make OBG segment 13AW weld SEG3013P-072. This QA Inspector observed a welding current of approximately 170 amps the base material had been preheated with electric heaters and Mr. Li Shoufu appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Jiang Yongsheng stencil 037998 used shielded metal arc welding procedure WPS-B-P-2212-FCM-1 to make OBG segment 13AW welds SEG3013S-114~130. This QA Inspector observed a welding current of approximately 180 amps, the base materials were heated with a torch and Mr. Jiang Yongsheng appeared to be certified to make these welds. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Lv Feng Yin, stencil 215676 used flux cored welding procedure WPS-B-T-2231-ESAB to make welds SA6004A-002-001, 002. This QA Inspector observed a welding current of approximately 270 amps, 26 volts the base material had been preheated with a torch and Mr. Lv Feng Yin appeared to be certified to make these welds. Items observed on this date appeared to generally comply with applicable contract documents.

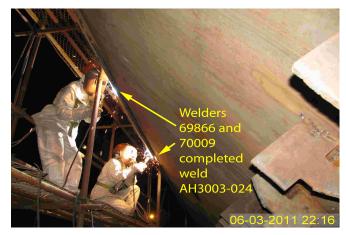
This QA Inspector observed ZPMC welder Mr. Xu Kesong, stencil 070009 used shielded metal arc welding procedure WPS-B-P-2214-TC-U4B-FCM-1 to make segment 13CW welds AH3003-024 and 025. This QA Inspector observed a welding current of approximately 160 amps the base material had been preheated with a torch

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and Mr. Xu Kesong appeared to be certified to make these welds. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wen Chao, stencil 069866 used shielded metal arc welding procedure WPS-B-P-2214-TC-U4B-FCM-1 to make segment 13CW welds AH3003-024 and 025. This QA Inspector observed a welding current of approximately 160 amps the base material had been preheated with a torch and Mr. Wen Chao appeared to be certified to make these welds. Items observed on this date appeared to generally comply with applicable contract documents.





Summary of Conversations:

See Above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact James Devey +8615000026784, who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Riley,Ken	QA Reviewer